CLAIMS PENDING AS OF PRELIMINARY AMENDMENT DATED DECEMBER 7, 2000

1. Dental isolation material, containing:
   10 - 60 wt.-% water
   30 - 85 wt.-% $_{C2-C4}$ alcohol
   2 - 10 wt.-% polyvinyl alcohol and
   0 - 30 wt.-% acetone

2. Dental isolation material according to claim 1, containing:
   40 - 50 wt.-% water
   45 - 55 wt.-% C_2-C_4 alcohol
   3 - 8 wt.-% polyvinyl alcohol
   0 1 5 wt.-% acetone

3. Dental isolation material according to claim 1, characterized in that the C_2-C_4 alcohol is ethanol.

4. Dental isolation material according to claim 1, characterized in that the polyvinyl alcohol has a molecular mass greater than 60,000 g/mol.

5. Dental kit, containing at least one isolating material according to any claim. 1

6. Dental kit according to claim 5, characterized in that a transparent dental investment material is used, containing:
   10 - 30 wt.-% polyethylene glycol dimethacrylate,
   40 - 55 wt.-% polymethyl methacrylate,
   5 - 15 wt.-% highly disperse silicon dioxide
   < 1 wt.-% photoinitiators, stabilizers,
   0 - 10 wt.-% polyethylene glycol and
   10 - 30 wt.-% of at least one compound from the group: urethane dimethacrylate, bis-GMA, ethoxylated bis-GMA.

7. Dental kit according to claim 5, characterized in that a transparent dental investment material is used, containing:
   15 - 20 wt.-% polyethylene glycol dimethacrylate,
   50 wt.-% polymethyl methacrylate
   10 - 13 wt.-% of at least one compound from the group, urethane dimethacrylate, bis-GMA, ethoxylated bis-GMA.
   10 wt.-% highly disperse silicon dioxide,
   0.4 - 0.6 wt.-% photoinitiators, stabilizers and
   5 - 10 wt.-% polyethylene glycol.

8. Dental kit according to claim 6, characterized in that the polyethylene glycol dimethacrylate has a molecular mass greater than 500 g/mol.

9. Dental kit according to claim 6, characterized in that the polyethylene glycol dimethacrylate is solid at a temperature of approximately T = + 20°C.

10. Dental kit according to claim 6, characterized in that the polymethyl methacrylate has a molecular mass greater than 160,000, an average grain size of 80 - 140 µm and a benzoyl peroxide content less than 0.1 wt.-%.

11. Dental kit according to claim 6, characterized in that the polymethyl methacrylate is a copolymer which has been made with up to 10 wt.-% of comonomers.

12. Dental kit according to claim 6, characterized in that the polyethylene glycol is fluid at a temperature of approximately T = +20°C and has an average molecular mass of ≥ 200 g/mol.

13. Dental kit according to claim 6, characterized in that the urethane dimethacrylate has a minimum molecular mass at the level of 450 g/mol.

14. Dental kit according to claim 6, characterized in that the polymethyl methacrylate is in the form of suspension polymerizate.

15. Dental kit according to claim 6, characterized in that a dental material hardenable by electromagnetic radiation is used as dental plastic.

16. Method for making a prosthesis, characterized in that at least one isolation material according to claim 1 is used.

17. Method for making a prosthesis by the following steps:

a.) Overmodeling a dental trial fitting with an investment material to create an individual flask or rim,

b) Curing the investment material by electromagnetic radiation,

c) Coating the inside of the polymerized investment material with an isolating material according to claim 1,

d) Pouring a dental plastic into the individual flask or rim and

e) Deflasking by shattering the investment material.

18. Method according to claim 16, characterized in that a transparent dental investment material is used, containing:

    10 - 30 wt.-% polyethylene glycol dimethacrylate,
    40 - 55 wt.-% polymethyl methacrylate,
    5 - 15 wt.-% highly disperse silicon dioxide,
    < 1 wt.-% photoinitiators, stabilizers,
    0 - 10 wt.-% polyethylene glycol and
    10 - 30 wt.-% of at least one compound from the group urethane dimethcrylate, bis-GMA, ethoxylated bis-GMA,

19. Method according to claim 16, characterized in that a transparent investment material is used, containing:
    15 - 20 wt.-% polyethylene glycol dimethacrylate,
    50 wt.-% polymethyl methacrylate
    10 - 15 wt.-% at least one compound from the group: urethane dimethacrylate, bis-GMA, ethoxylated bis-GMA,
    10 - 13 wt.-% highly disperse silicon dioxide,
    0.4 - 0.6 wt.-% photoinitiators, stabilizers, and
    5 - 10 wt.-% polyethylene glycol.

20. Method according to claim 17, characterized in that the polyethylene glycol dimethacrylate has a molecular mass > 500 g/mol.

21. Method according to claim 17, characterized in that the polyethylene glycol dimethacrylate is solid at a temperature of approximately T = + 20°C.

22. Method according to claim 17, characterized in that the polymethylene methacrylate has a molecular mass of > 160,000, an average grain size of 80 - 140 µm and a benzoyl peroxide content < 0.1 wt.-%.

23. Method according to claim 17, characterized in that the polymethyl methacrylate is a copolymer which has been made with up to 20 wt.-% comonomers.

24. Method according to claim 17, characterized in that the polyethylene glycol is fluid at a temperature of approximately T = + 20°C and has an average molecular mass of ≥ 200 g/mol.

25. Method according to claim 17, characterized in that the urethane dimethacrylate has a minimum molecular mass at the level of 450 g/mol.

26. Method according to claim 17, characterized in that the polymethyl

methacrylate is in the form of suspension polymerizate.

27. Method according to claim 17, characterized in that a dental material curable by means of electromagnetic radiation is used as dental plastic.

28. Method according to claim 17, characterized in that retentions are set up after carving and before coating.

29. Method of using an isolating material according to claim 1 for making a total or partial prosthesis.

30. Prosthesis, characterized in that it is made by a method of claim 16.

31. Method for making a prosthesis, characterized in that at least one isolating material according to claim 1 is used, and at least one investment material containing:

10 - 30 wt.-% polyethylene glycol dimethacrylate,
40 - 55 wt.-% polymethyl methacrylate,
5 - 15 wt.-% highly disperse silicon dioxide
< 1 wt.-% photoinitiators, stabilizers,
0 - 10 wt.-% polyethylene glycol and
10 - 30 wt.-% of at least one compound from the group: urethane dimethacrylate, bis-GMA, ethoxylated bis-GMA.

32. Method according to claim 31, characterized in that a transparent dental investment material is used, containing:

15 - 20 wt.-% polyethylene glycol dimethacrylate,
50 wt.-% polymethyl methacrylate
10 - 15 wt.-% at least one compound from the group: urethane dimethacrylate, bis-GMA, ethoxylated bis-GMA,
10 - 13 wt.-% highly disperse silicon dioxide,
0.4 - 0.6 wt.-% photoinitiators, stabilizers, and
5 - 10 wt.-% polyethylene glycol.

33. Method according to claim 31, characterized in that the polyethylene glycol dimethacrylate has a molecular mass > 500 g/mol.

34. Method according to claim 31, characterized in that the polyethylene glycol dimethacrylate is solid at a temperature of approximately T = + 20°C.

35. Method according to claim 31, characterized in that the polymethyl methacrylate has a molecular mass of > 160,000, an average grain size of 80 - 140 µm and a benzoyl peroxide content < 0.1 wt.-%.

36. Method according to claim 31, characterized in that the polymethyl methacrylate is a copolymer which has been made with up to 10 wt.-% comonomers.

37. Method according to claim 31, characterized in that the polyethylene glycol is fluid at a temperature of approximately T = +20°C and has an average molecular mass of ≥ 200 g/mol.

38. Method according to claim 31, characterized in that the urethane dimethacrylate has a minimum molar mass at the level of 450 g/mol.

39. Method according to claim 31, characterized in that the polymethyl methacrylate is in the form of a suspension polymerizate.

40. Method according to claim 31, characterized in that a dental material curable by means of electromagnetic radiation is used as dental plastic.

41. Method according to claim 31, characterized in that retentions are set up after the overmodeling and before the coating.

42. Method of using an isolation material according to claim 1 as isolation against dentin in the direct making of impressions for inlays by means of carving plastics in the mouth.

43. Method of using an isolation material according to claim 1 as isolation against plaster of Paris in carving work for inlays, onlays or crowns.

44. Method of using an isolation material according to claim 1 as protection for polymerized plastic against unpolymerized material in add-ons or repairs, especially for the avoidance of crazing on prosthesis teeth by monomers.